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HISTORIC AMERICAN ENGINEERING RECORD

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Electron Hydroelectric Project (Puyallup Project)
Along 10 miles of the Puyallup River
Electron
Pierce County
Washington

HAER No. WA-12

NOTE: Photographs WA-12-1 through WA-12-57 were taken by Dick Garvey,
photographer, July 1984
Photographer for WA-12-58 through WA-12-89 is unknown.

WA-12-1	OVERVIEW OF HEADWORKS, LOOKING NORTHEAST
WA-12-2	VIEW OF HEADGATE FRAME
WA-12-3	VIEW FROM FLUME OF HEADGATE LOWER FRAMEWORK
WA-12-4	DETAIL VIEW OF ROCK CHUTE #2 GEARWORKS, SHOWING ROCK CHUTE #1 IN BACKGROUND
WA-12-5	VIEW FROM FLUME OF ROCK CHUTE #1, SHOWING SINGLE SHEAR AND GATE SET BACK BECAUSE OF DEBRIS
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WA-12-10	VIEW OF SHACK #1, NEISSON CREEK, LOOKING FROM TOP OF FLUME
WA-12-11	INTERIOR VIEW OF SHACK #1, NEISSON CREEK
WA-12-12	VIEW OF PLYWOOD TO TONGUE AND GROOVE TRANSITION, LOOKING INSIDE FLUME UPSTREAM OF SETTLING BASIN
WA-12-13	VIEW OF GEARWORKS FOR SETTLING POND GATE, BRAKE ON LEFT, NEEDLE RACK, LOOKING NORTHWEST
WA-12-14	INSIDE VIEW OF FLUME, LOOKING DOWNSTREAM TOWARD SETTLING BASIN, SHOWING RIGHT FORK TO BYPASS, LEFT FORK TO BASIN

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WA-12-15 INSIDE VIEW OF FLUME, LOOKING DOWNSTREAM, LEFT FORK TO SETTLING BASIN, SHOWING RIGHT FORK WITH GATE IN PLACE AND A FEW NEEDLES IN PLACE

WA-12-16 VIEW OF GATE FROM FLUME TO SETTLING BASIN, SHOWING CRANK AND NEEDLE RACK IN BACKGROUND, LOOKING SOUTHEAST

WA-12-17 VIEW OF SETTLING BASIN, SHOWING FLUME TRACK SPUR CROSSING OVER SETTLING BASIN, SPARE BENT MATERIAL IN RIGHT-HAND FOREGROUND, BYPASS FLUME, AND SHACK #6 IN BACKGROUND, LOOKING NORTHWEST

WA-12-18 VIEW OF SETTLING BASIN FROM UPSTREAM TRESTLE, SHOWING BULKHEAD ON RIGHT AND SAND BANK ON LEFT, LOOKING NORTHWEST

WA-12-19 VIEW OF SETTLING BASIN SLUICE GATE, SHOWING BYPASS FLUME IN BACKGROUND

WA-12-20 VIEW OF DISCHARGE CHUTE, LOOKING NORTH FROM SETTLING BASIN SLUICE GATE

WA-12-21 VIEW OF TRESTLE WORK UPSTREAM OF BRIDGE #4, SHOWING BENTS

WA-12-22 DETAIL VIEW OF BRIDGE #4, SHOWING DOUBLE BENT CONSTRUCTION

WA-12-23 DETAIL VIEW OF BRIDGE #4, SHOWING DOUBLE BENT AND BENT CONSTRUCTION

WA-12-24 DETAIL VIEW OF BRIDGE #4, SHOWING DOUBLE BENT JOINT, JACK BLOCK (2X4 IS NEW CONSTRUCTION)

WA-12-25 VIEW LOOKING UNDER AND THROUGH TALL BENTS

WA-12-26 VIEW OF STAGGERED STRINGERS UNDER FLUME

WA-12-27 VIEW OF TOP OF FLUME, LOOKING UPSTREAM, SHOWING REPETITION OF BENTS

WA-12-28 VIEW OF BENTS ON INSIDE CURVE

WA-12-29 DETAIL VIEW OF BENT ON INSIDE CURVE

WA-12-30 DETAIL VIEW OF BENT AND FLUME ON INSIDE CURVE

WA-12-31 VIEW OF STRAIGHT ON ELEVATION OF FLUME

WA-12-32 DETAIL VIEW OF BENT, STRAIGHT SECTION

WA-12-33 VIEW OF FLUME ON SIDE HILL

WA-12-34 VIEW OF "S" CURVE, FROM WALKWAY ON FLUME

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WA-12-35 VIEW OF SHACK #4, LOG LAND, SHOWING SPUR TRACK TO MATERIALS

WA-12-36 VIEW OF LOG LANDING

WA-12-37 VIEW OF GEARS AT SPILLWAY #12, FRONT UNCOVERED, SHOWING SPILLWAY TO LEFT, TRACKS OVER FLUME ON RIGHT

WA-12-28 DETAIL VIEW OF GEARS AT SPILLWAY #12, FRONT UNCOVERED, BACK COVERED, WITH FRONT GATE OPEN

WA-12-39 VIEW SHOWING INSIDE OF SPILLWAY #12, WITH ONE GATE OPEN AND ROCK PILED UP

WA-12-40 VIEW, LOOKING WEST, OF TOP OF FLUME NEAR FOREBAY, SHOWING LUMBER SHED, TWO TRACKS, CRANEWAY SHED IN BACKGROUND, RESERVOIR TO LEFT, RIGHT TO YARDS AND FACILITIES, AND OVERFLOW SPILLWAY ON LOWER RIGHT

WA-12-41 VIEW FROM END OF FLUME, LOOKING WEST, SHOWING OVERFLOW CHUTE ON RIGHT (PARALLEL TO FLUME), RESERVOIR EMBANKMENT IN BACKGROUND, AND HOOKS ON END OF RAILING FOR SPILLBOARDS

WA-12-42 DETAIL VIEW OF INSIDE OF FLUME, SHOWING SOLID WALL AND VARIOUS LEVELS OF SPILLBOARDS

WA-12-43 VIEW OF END OF OVERFLOW CHUTE, SHOWING FLUME ON RIGHT

WA-12-44 INTERIOR VIEW OF FLUME WITH PLYWOOD WALLS, LOOKING UPSTREAM

WA-12-45 DETAIL VIEW OF PLYWOOD INSIDE FLUME, SHOWING MOSS ON WALL

WA-12-46 VIEW, LOOKING WEST FROM DETERIORATED END OF FLUME AT RESERVOIR'S EAST EDGE, SHOWING DREDGE IN LEFT BACKGROUND, SIDE VIEW OF FOREBAY SHED ON RIGHT

WA-12-47 VIEW, LOOKING WEST OF FOREBAY, SHOWING DREDGE ON LEFT, FLUME END ON RIGHT, AND FOREBAY SHED IN BACKGROUND

WA-12-48 DETAIL VIEW OF STUB SWITCH, LOOKING INTO SWITCH, SHOWING MAINLINE MOVES TO CONNECT

WA-12-49 DETAIL VIEW OF DUTCHMAN, STUB SWITCH, AND TYPICAL MAINLINE ATTACHMENT

WA-12-50 VIEW OF BOOM CAR

WA-12-51 VIEW OF BENT MACHINE

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- WA-12-52 VIEW SHOWING BOOM SPEEDER IN MIDDLE, PASSENGER CAR ON LEFT, AND FLAT CAR ON RIGHT
- WA-12-53 VIEW OF PASSENGER SPEEDER 04 IN FOREGROUND, BOOM SPEEDER 75 IN BACKGROUND LEFT, AND BOOM SPEEDER 59 IN BACKGROUND RIGHT
- WA-12-54 VIEW OF BOOM SPEEDER 59
- WA-12-55 VIEW OF BOOM SPEEDER 75
- WA-12-56 VIEW OF DOUBLE DRUM CAR
- WA-12-57 VIEW SHOWING COMPRESSOR CAR AT LEFT, ELECTRICAL GENERATOR CAR IN MIDDLE, AND SPEEDER 75 BOOM AT RIGHT

The following are photocopies of photographs (original prints are in the Special Collections Division, University of Washington Libraries, Seattle, Washington)

- WA-12-58 VIEW OF CABLE INCLINE, LOCATED ON THE HILLSIDE BELOW THE FOREBAY (NORTHWEST OF FOREBAY), Print No. 156, August 1903
- WA-12-59 VIEW OF LAYING STRINGERS NEAR THE SLIDE, Print No. 157, August 1903
- WA-12-60 VIEW LOOKING UP LINE OVER SLIDE, Print No. 161, August 1903
- WA-12-61 VIEW OF WAREHOUSE, MACHINE SHOP, AND HOISTING PLANT, WITH FOREBAY ON RIGHT IN FOREGROUND, Prints No. 158 and 159, August 1903
- WA-12-62 VIEW OF POLE LINE IN STUCK VALLEY, NORTH OF SUMNER, Print No. 162, August 1903
- WA-12-63 PANORAMIC VIEW OF HEADWORKS FROM WEST SIDE OF RIVER, LOOKING UPSTREAM, Prints No. 173, 174 and 175, November 1903
- WA-12-64 VIEW OF WEST SIDE OF THE RIVER, SHOWING THE INTAKE AND FLUME LINE, Print No. 146, November 1903
- WA-12-65 VIEW LOOKING UPSTREAM FROM FLUME SUBSTRUCTURE, SHOWING COLUMBIA IMPROVEMENT COMPANY'S NEISSON CREEK SAWMILL, Print No. 177, November 1903
- WA-12-66 VIEW OF COMPLETED FLUME, LOOKING SOUTHEAST IN SECTION 18, TOWNSHIP 17N, RANGE 63, Print No. 178, November 1903

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- WA-12-67 VIEW, FROM SOUTHEAST CORNER, SHOWING FOREBAY IN CONSTRUCTION, Print No. 184, November 1903
- WA-12-68 VIEW OF WOOD STAVE PIPE TAKEN FROM THE TOP OF THE PENSTOCK LINE, LOOKING SOUTH. PORTION OF PIPE BETWEEN THE FOREBAY AND RAILROAD TRACK WILL BE COVERED WITH CONCRETE CORE WALL AND EARTH EMBANKMENT OF RESERVOIR, Print No. 185, November 1903
- WA-12-69 VIEW OF FOREBAY AND RESERVOIR, SHOWING FLUME ENTRANCE TO RESERVOIR ON THE RIGHT OF FOREBAY IN THE BACKGROUND (SHOWN BY THE WHITE X ON THE PHOTOGRAPHS), Print No. 191, December 1903
- WA-12-70 VIEW OF PARTIALLY COMPLETED FLUME BELOW THE AUTOMATIC SPILL AT THE RESERVOIR, SHOWING MOUNT RAINIER IN THE DISTANCE, Print No. 192, December 1903
- WA-12-71 VIEW OF FLUME CONSTRUCTION THROUGH PUYALLUP CANYON BETWEEN CAMPS 4 AND 5, Print No. 194, December 1903
- WA-12-72 VIEW OF DAM, LOOKING EAST, Prints No. 195 and 196, December 1903
- WA-12-73 VIEW LOOKING DOWN ON THE POWERHOUSE FROM THE SOUTHEAST, Print No. 199, January 1904
- WA-12-74 VIEW LOOKING DOWN ON THE POWERHOUSE FROM THE NORTHWEST, Print No. 202, January 1904
- WA-12-75 VIEW OF FLUME CONSTRUCTION THROUGH THE PUYALLUP CANYON NEAR CAMP NO. 4, Print No. 206, December 1903
- WA-12-76 PANORAMIC VIEW OF HEADWORKS, SHOWING GATEKEEPER'S LODGE ON THE RIGHT, Prints No. 213-218, April 1904
- WA-12-77 VIEW OF INTAKE OF THE DAM, LOOKING EAST, SHOWING UNCOMPLETED RADIAL GATE TO THE LEFT, Print No. 230, April 1904
- WA-12-78 VIEW OF UNCOMPLETED RESERVOIR, SHOWING FOREBAY AND FLUME; ALSO SHOWING POOL ARRANGEMENT FOR TEMPORARILY UTILIZING WATER WITHOUT FILLING THE RESERVOIR, Print No. 232, April 1904
- WA-12-79 VIEW OF SPILLWAY THAT AUTOMATICALLY REGULATES HEIGHT OF WATER IN RESERVOIR, "BACKWATER OVERFLOW," Print No. 233, April 1904
- WA-12-80 VIEW OF PLACING WHEELS IN SHAFT OF NO. 2 UNIT IN POSITION. OVERVIEW LOOKING EAST IN THE POWERHOUSE, Print No. 234, April 1904

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- WA-12-81 VIEW OF CONNECTION BETWEEN INTAKE AND FLUME, SHOWING UNCOMPLETED RADIAL GATE IN PLACE, Print No. 240, April 1904
- WA-12-82 VIEW SHOWING PLACING WATERWHEELS AND ROTOR SHAFT IN BEARINGS IN NO. 3 UNIT, Print No. 250, June 1904
- WA-12-83 OVERVIEW OF PARTIALLY COMPLETED POWERHOUSE WITH TWO UNITS IN OPERATION, LOOKING UPSTREAM, Print No. 274, June 1904
- WA-12-84 VIEW OF POWERHOUSE CROSS SECTION, LOOKING EAST, SHOWING CIRCUITS NO. 2 AND NO. 3, Print No. 279B, 1903
- WA-12-85 VIEW OF POWERHOUSE CROSS SECTION, LOOKING EAST, SHOWING CIRCUITS NO. 1 AND NO. 4, Print No. 279C, 1903
- WA-12-86 INTERIOR VIEW OF POWERHOUSE, LOOKING WEST, Print No. 315, October 1904
- WA-12-87 VIEW OF COMPLETED FLUME, SHOWING CURVE CONSTRUCTION POWER LINE IN THE BACKGROUND, Print No. 358, 1904
- WA-12-88 OVERVIEW OF HEADWORKS, LOOKING UPSTREAM, Print No. 359, 1904
- WA-12-89 OVERVIEW OF POWERHOUSE AND PENSTOCKS, LOOKING SOUTH, Print No. 368, 1904

NOTE: Photographs No. WA-12-58 through WA-12-89 are 8x10-inch enlargements from 4x5-inch negatives.

The field records for this project contain copies of original construction drawings, field notes for the HAER drawings, and additional information.